

## A B S T R A C T

AN APPARATUS AND METHOD FOR VERY HIGH DATA RATE OPTICAL TRANSMISSION, AND THE USE OF SAID APPARATUS AND SAID

5       METHOD

The invention relates to an apparatus for transmitting a signal through an optical data transmission network, the apparatus comprising a pulse emitter (10) and at least one line fiber (12) for conveying at least one pulse (30) in said line fiber. 10 The apparatus further comprises a spreader module (14) for linearly spreading pulses, said spreader module comprising a propagation medium that is dispersive and linear, said propagation medium presenting accumulated chromatic dispersion that is high enough to lower the peak power ( $P_c$ ) of the pulse to below a predetermined threshold ( $S$ ), where a signal above said threshold is liable to be subjected to non-linear distortion in the 15 line fiber, said spreader module (14) being disposed between the emitter (10) and the line fiber (12).  
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35       Translation of the title and the abstract as published by the PCT Authorities, possibly after making changes, ex officio, e.g. under PCT Rules 37.2, 38.2, and/or 48.3.